thianthrene) formerly marketed as Mitigal.® Very effective treatment. Expensive. Can be used in concentrations from 10 to 100 percent without causing dermatitis.

- Benzyl benzoate emulsions—At least a 20 percent concentration is necessary for 99 percent effectiveness.

In the treatment of scabies and lice, one must always take into account that by the time the patient is first diagnosed and treated with a proper medication for the parasites, they may well have a secondary pyoderma or eczematoid dermatitis. The therapeutic regimen for the patient, therefore, should take into account all of these factors.

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REFERENCES

Mellanby K: Scabies. Middlesex, E. W. Classey Ltd., 1972
Hurwitz S: Scabies in babies. Am J Dis Child 126:226, Aug 1973
Medical News: Spread of human lice worries experts. JAMA 226:21, Oct 1973

The Prevention of Erythroblastosis Fetalis

ERYTHROBLASTOSIS FETALIS due to Rh incompatibility is now a fully preventable disease. A recently published report of the World Health Organization (WHO) Scientific Group, *Prevention of Rh Sensitization,* summarizes both the rationale and the techniques that must be applied. Other authors have also pointed out how these recommendations should be incorporated into the practice of clinical preventive medicine by all those caring for pregnant women.

THE WHO RECOMMENDATIONS

- All Rh-negative women who are not already immunized to Rh and who give birth to an Rh-positive infant should receive a dose of anti-Rh. This dose should be judged according to the titer of anti-Rh in a woman's serum. The inhibitory effect of this anti-Rh is only transient so that a dose given at the time of a first delivery will have no effect on immunization following a later pregnancy. Therefore, the dose must be given after each pregnancy.
- D^u women should not be treated with anti-Rh since most of it will be absorbed onto the D^u cells, leaving very little to react with the infant's red cells. In addition, the risk of formation of anti-Rh in a D^u woman is extremely small.
- Rh-negative women who have abortions should receive a dose of anti-Rh, unless it is shown that the conceptus is Rh-negative.
- Anti-Rh should be given to all non-immunized Rh-negative women following any incidents during pregnancy where appreciable transplacental bleeding (for example, external version, amniocentesis and antepartum hemorrhage) can be anticipated.
- The presence in the recipient of other blood group antibodies, such as anti-K, is not a contraindication to giving a dose of anti-Rh.
- The presence of immunoglobulin preparations of other red cell antibodies, such as anti-C, anti-E or anti-K, is unimportant and it is unnecessary to cross-match the immunoglobulin against the recipient's red cells. On the other hand, cross-matching may be used as a method of detecting a large transplacental hemorrhage.
- Anti-Rh immunoglobulin should be given as soon as possible after delivery and within 72 hours whenever possible. It can be given either intramuscularly or, if suitably prepared, intravenously. When the intramuscular route is used, care should be taken to avoid injection into adipose tissue.

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REFERENCES

World Health Organization Technical Report No. 468: Prevention of Rh Sensitization. Geneva, 1971
Stokes J III, Schneiderman LJ, Phillips TJ, et al: Preventive medicine, Chap 5 *In* Conn H, Rakel R, Johnson T (Eds): Family Practice. Philadelphia, W B Saunders Co, 1973, p 60

Influenza Vaccines 1974

AT PRESENT only inactivated influenza vaccines are licensed for use in the United States. In recent years, these vaccines have been more standardized and have contained fewer impurities. Some of these vaccines are produced using recombination techniques which cut production time from six months to less than four weeks and increased the yield of virus particles by a factor of ten. These vaccines stimulate production of serum antibodies and nasal neutralizing antibodies against the viral strains they contain. Their effectiveness is estimated at 70 to 80 percent.

Most influenza vaccines are manufactured during the first half of the calendar year in preparation for distribution in the fall months. These vaccines are bivalent, containing inactivated virus particles from antecedent and prevalent strains of

Influenza A and B. For the coming 1974-75 season, only one dose of the bivalent influenza vaccine will be recommended for adequate protection. Two injections (one of each of two vaccines) were necessary during the 1973-74 season as the disease potential of the Hong Kong strain of Influenza B was not realized until the spring of 1973 and it was too late to incorporate it into the already manufactured bivalent vaccine produced for the 1973-74 season.

Live vaccines are still in the developmental state and demonstrate varying degrees of protection. Side effects vary from no clinical systemic signs to minimal upper respiratory symptoms.

The following table is a brief summary of the current status of live influenza vaccines.

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REFERENCES

Jordon WS Jr, Hopps HE, Merigan TC: Influenza and interferon research in the Soviet Union—January 1973. J Infect Dis 128:261, Aug 1973

Kilbourne ED: The molecular epidemiology of influenza. J Infect Dis 127:478, Apr 1973

Maugh TH II: Influenza—The last of the great plagues. Science 180:1042, Jun 1973

Maugh TH II: Influenza (II)—A persistent disease may yield to new vaccines. Science 180:1159, Jun 1973

Scombroid Poisoning from Mahi-Mahi

RECENT OUTBREAKS have shown that spoiled mahi-mahi prepared from dolphin fish (family Coryphaenidae) can cause acute food poisoning with characteristic symptoms previously believed to be associated only with the Scombroidea family of fishes (for example, tuna, mackerel, bonito, albacore, skipjack). Symptoms include nausea, vomiting, diarrhea, abdominal cramps, swelling and flushing of the face, oral burning and blistering, thirst, metallic or peppery taste, pruritis, severe throbbing headache and urticaria. Thus, the patient appears to have both an allergic reaction and a gastro-intestinal upset. The disease is typical of chemical poisoning in that the incubation period is brief, ranging from a few minutes to one hour. The cause is related to spoilage, whereby bacteria break down the histidine in the flesh of those species that can cause disease. The spoilage may be so minimal that it is not obvious to the patient.

The disease is usually self-limited with relief in 8 to 12 hours. Treatment with antihistamines or sympathomimetics (for example, epinephrine

Current Status of Live Influenza Vaccines

Research Group	*Vaccine Type (Production method)*	*Clinical Effect on Recipients*	*Degree of Protection Against Wild Virus Infection*
1. Chanock RM, et al National Inst. of Allergy & Infectious Disease	Temperature sensitive variant. Grows at lower temperature than wild virus. Produced by use of 5-fluorouracil acting on previous wild virus strain ($1965A_2$, HKA_3).	25 percent volunteers have mild upper respiratory infection symptoms.	100 percent in those volunteers challenged with wild virus.
2. Davenport FM, Massab HF University of Michigan	Temperature sensitive variant. Older, mouse-adapted influenza subtype was used.	?	?
3. Kilbourne ED Mt. Sinai Hospital, New York, N.Y.	Vaccine against neuraminidase antigen. Used recombination techniques. "Infection-permissive" immunization.	Mild symptoms in some recipients.	Trials under way.
4. Hannoun C Pasteur Institute, Paris	Point variant that no longer mutates. Grow current circulating strain in presence of antibodies specific for variant.	Minimal.	Percentages not available.
5. Russian vaccines	A. Intranasal allantoic fluid attenuated virus.	Reactogenic. Limited to adults 16 and older.	Poor.
	B. Oral tissue culture fluid (chick embryo kidney cells).	Given as drink to 1 year and older	Poor.
6. Smith, Kline and French	Live attenuated form of A_2 (Eng 42/74). Administer intranasally with drops or nasal spray.	No symptoms Non-spreading Antigenic yields good nasal and serum ABY response.	Trials under way with wild influenza virus challenge (including Eng 42/74 and Australia 73).